

## **ABSTRACT**

An odd-order low-pass filter is disclosed for being interposed between a home

telephone wiring network and a POTS, or voice-band, device to separate voice-band
signals from higher frequency signals, such as ADSL signals and home networking
signals. In one embodiment, the filter includes a pair of coupled inductors separated by a
capacitor to isolate the POTS device from DSL signals. Each coupled inductor includes a
pair of inductor windings wrapped about an inductor core. A resistive element positioned
in parallel with each of the windings reduces interference between resonant xDSL signals
and operation of an associated caller ID device.